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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,446	01/04/2006	Ikuo Shimoda	PTB-1207-131	8048

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EXAMINER	
BURCH, MELODY M	

ART UNIT	PAPER NUMBER
3657	

MAIL DATE	DELIVERY MODE
10/03/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,446	SHIMODA ET AL.	
	Examiner	Art Unit	
	MELODY BURCH	3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1,6 and 8-16* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1,6 and 8-16* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/19/11 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 6, and 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Re: claims 1 and 14. The originally filed specification fails to provide support for the limitation of the weight being held immovably with respect to the wall portions or frame body *only* by means of the springs as recited in claims 1 and 14. Examiner notes

that other forces act to prevent the weight from moving with respect to the wall portions or frame body such as gravity.

Re: claims 1 and 14-16. The originally filed specification also fails to provide support for the limitation of the weight being held immovably in the vertical direction. Examiner notes that the weight is supported with respect to the frame body by leaf springs which are inherently flexible. Even if flexibility is significantly less as arranged in the vertical direction, Examiner maintains that there would still be some level of movement in the vertical direction in response to a large enough vertical force. Paragraph [0007] even describes that the leaf springs are "practically not deflected in the vertical direction" suggesting that the leaf springs are not totally immovable in the vertical direction. Examiner suggests using such language as "*substantially* immovable" to better coincide with that which was described in the specification.

The remaining claims are rejected due to their dependency from one of the independent claims.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 6, and 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim limitation "damping mechanism for damping" uses the phrase "means for" or "step for", but it is modified by some structure, material, or acts recited in the claim. It is unclear whether the recited structure, material, or acts are sufficient for

performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph, because the means for phrase is modified by structure specifically defining the damping mechanism as including a magnetic field generating body in claims 1 and 15, a first and second damping device in claims 14 and 16.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase "means for" or "step for" is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase "means for" or "step for").

The remaining claims are indefinite due to their dependency from one of the independent claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-542789 (JP'789) in view of US Patent 5445249 to Aida et al.

Re: claims 15 and 16. JP'789 shows in figures 2 and 4 a dynamic vibration absorber comprising: a weight 5; a frame body 1 which surrounds said weight; a plurality of vertically mounted U-shaped leaf springs 4B, 6B which are interposed between said frame body and said weight in a direction perpendicular to a vertical direction so as to hold said weight with respect to said frame body movably with respect to all the directions in a plane and a damping mechanism 7B for damping the vibration of said weight in the plane, said plurality of leaf springs each having a concave surface, wherein said frame body has a pair of X-direction vertical wall portions opposed to each other in an X direction in the plane with said weight disposed therebetween and a pair of Y- direction vertical wall portions opposed to each other in a Y direction which intersects the X l direction in the plane with said weight disposed therebetween, said X-direction vertical wall portions and said Y-direction vertical wall portions each extending in vertical direction, wherein at least a first two of said leaf springs are interposed between one of said pair of X-direction vertical wall portions and said weight in the X direction, and are opposed to each other in the Y direction, such that edge portions thereof extending in the vertical direction are secured to said one X-direction vertical wall portion, respectively, other edge portions thereof extending in the vertical direction are secured to said weight, respectively, and said concave surface of one of said at least first two of said leaf springs faces said concave surface of another one of said at least first two of said leaf springs, wherein at least a second two of said leaf springs are interposed between another one of said pair of X-direction vertical wall portions and said weight in the X direction, and are opposed to each other in the Y direction, such that edge

portions thereof extending in the vertical direction are secured to said other X-direction vertical wall portion, respectively, other edge portions thereof extending in the vertical direction are secured to said weight respectively, and said concave surface of one of said at least second two of said leaf springs faces said concave surfaces of another one of said at least second two of said leaf springs, wherein at least a third two of said leaf springs are interposed between one of said pair of Y-direction vertical wall portions and said weight in the Y direction, and are opposed to each other in the X direction, such that edge portions thereof extending in the vertical direction are secured to said one Y-direction vertical wall portions, respectively, other edge portions thereof extending in the vertical direction are secured to said weight, respectively, and said concave surface of one of said at least third two of said leaf springs faces said concave surface of another one of said at least third two of said leaf springs, wherein at least a fourth two of said leaf springs are interposed between another one of said pair of Y-direction vertical wall portions and said weight in the Y direction, and are opposed to each other in the X direction, such that edge portions thereof extending in the vertical direction are secured to said other Y-direction vertical wall portions, respectively, other edge portions thereof extending in the vertical direction are secured to said weight, respectively, and said concave surface of one of said at least fourth two of said leaf springs faces said concave surface of another one of said at least fourth two of said leaf springs as shown in figures 2 and 4.

JP'789 is silent with regards to the limitation wherein the weight is arranged immovably in the vertical direction perpendicular to the plane and/or wherein the

damping mechanism includes: a first magnetic field generating body which is fixed to one of said weight and said one of said pair of X-direction vertical wall portions between said concave surfaces of said at least first two of said leaf springs in the Y direction and generates a magnetic field, and a first plate-shaped electric conductor which is fixed to another one of said weight and said one of said pair of X-direction vertical wall portions between said concave surface of said at least first two of said leaf springs in the Y direction and generates an eddy current by its relative movement with respect to said first magnetic field generating body, a second magnetic field generating body which is fixed to one of said weight and said other of said pair of X-direction vertical wall portions between said concave surfaces of said at least second two of said leaf springs in the Y direction and generates a magnetic field, and a second plate-shaped electric conductor which is fixed to another one of said weight and said pair of X-direction vertical wall portions between said concave surface of said at least first two of said leaf springs in the Y direction and generates an eddy current by its relative movement with respect to said first magnetic field generating body, a second magnetic field generating body which is fixed to one of said weight and said other of said pair of X-direction vertical wall portions between said concave surfaces of said at least second two of said leaf springs in the Y direction and generates a magnetic field, and a second plate-shaped electric conductor which is fixed to another one of said weight and said other of said pair of X-direction vertical wall portions between said concave surfaces of said at least second two of said leaf springs in the Y direction and generates an eddy current by its relative movement with respect to said second magnetic field generating body, a third magnetic

field generating body which is fixed to one of said weight and said one of said pair of Y-direction vertical wall portions between said concave surface of said at least third two of said leaf springs in the X direction and generates a magnetic field, and a third plate-shaped electric conductor which is fixed to another one of said weight and said one of said pair of Y-direction vertical wall portions between said concave surfaces of said at least third two of said leaf springs in the X direction and generates an eddy current by it relative movement with respect to said third magnetic field generating body, and a fourth magnetic field generating body which is fixed to one of said weight and said other of said pair of Y-direction vertical wall portions between said concave surfaces of said at least fourth two of said leaf springs in the X direction and generates a magnetic field, and a fourth plate-shaped electric conductor which is fixed to another one of said weight and said other of said pair of Y-direction vertical wall portions between said concave surfaces of said at least fourth two of said leaf springs in the X direction and generates an eddy current by its relative movement with respect to said fourth magnetic field generating body.

Aida et al. teach in figures 1 and 2 the limitation of the weight being immovably situated in the vertical direction by way of the weight's cooperation with element 9.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the movement of the weight of the absorber of JP'789 to have been immovable in the vertical direction, as taught by Aida et al., in order to provide a means of keeping the gap between the magnetic components fixed to dynamically control the weight's horizontal movement.

Aida et al. teach in figures 1 and 2 and in the last eleven lines of the abstract the use of four magnetic field generating body and electric conductor mechanisms arranged equiangularly around the weight 1 forming a part of a damping mechanism between the weight 1 and a frame body 3.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the damping mechanism of the vibration absorber of JP'789, as modified, to have included four equiangularly arranged magnetic field generating body and electric conductor mechanisms, in view of the teachings of Aida et al. in order to provide uniform damping on each side of the weight.

Examiner notes that such a combination would result in the damping mechanism being disposed between and defined by the concave surfaces of the leaf springs on each side of the weight.

Response to Arguments

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents: 7189053 to Winkler, 7312991 to Lee et al., and 7478803 to Lee teach the use of vibration absorbers having spring-type elements situated between a central weight and a surrounding frame body.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELODY BURCH whose telephone number is

(571)272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
September 27, 2011

/Melody M. Burch/
Primary Examiner, Art Unit 3657